

AMENDMENTS TO THE SPECIFICATION

Please add the following new paragraphs after line 4 on page 4:

-- It is desirable that the barrier layer composition of the invention reaches substantial cure in less than 1 hour at about 70 °F to about 75 °F. It is also desirable that the barrier layer has a specific gravity of greater than about 1.2, preferably greater than about 1.3. It is further desirable that the composition effects wetting during formation of the barrier layer.

The present invention is also directed to a golf ball having a cover layer encasing a subassembly, which in turn having a barrier layer encasing a core. In one embodiment, the subassembly has a Shore D hardness of less than about 60. In another embodiment, the subassembly has a Shore D hardness of greater than about 50. The barrier layer preferably has a water vapor transmission rate of less than about 0.6 grams•mm/m²•day and a thickness of about 0.001 inches to about 0.1 inches, more preferably about 0.01 inches to about 0.1 inches. The composition of the barrier layer comprises at least one material, preferably curable, and optionally in combination with flakes such as aluminum flakes, iron oxide flakes, micaceous flakes, flaked glass, leafing aluminum flakes, and graphite flakes. The composition forms a tortuous path against water vapor encroachment. The composition may be an anhydrous mixture, preferably in a liquid form. Alternatively, the composition can be a one-part or two-part formulation that is millable, extrudable, melt-flowable, castable, or injection moldable.

Materials suitable for the barrier layer composition preferably has a viscosity of about 300 centipoises to about 100,000 centipoises and a molecular weight of about 500 to about 500,000. Exemplary materials include, without limitation: polythiopolymercaptan polymers; alkyl thiuram polysulfides; solid polysulfides; liquid polysulfides; solvent-dispersed polysulfides; polymers comprising free mercapto groups; hygroscopic polymers; polymers having an elongation-to-break ratio of about 400% to about 500%; polymers comprising a recurring unit of RSS, where R is a divalent organic radical, and SS is a disulfide linkage; polymers comprising a recurring structure of S-CH₂-CH₂-O-CH₂-O-CH₂-CH₂-S; polysulfides having an average of at least about 1.8 sulfur atoms per sulfide linkage; reaction products of thio or hydroxyl terminated polysulfides and isocyanate terminated polysulfides or polyisocyanate; and polymers formed from at least one compound selected from the group consisting of aliphatic halide, alkylene chlorides, ethylene

dichlorides, oxygen-containing aliphatic halides, bis-beta-chloroethyl ether, bis-beta-chloroethyl formal, and a mixture thereof.

The barrier layer composition may further comprise one or more suitable substances, such as: deliquescent agents; desiccating agents; accelerating agents; deliquescent accelerating agents; desiccating, deliquescent, dormant curing and accelerating agents; flow-enhancing agents; dormant curing agents; cure-retarding agents; curing catalysts; chain stoppers; plasticizers; thixotropic agents; antioxidants; heat stabilizers; ionomers; phenolic resins; coumarone-indene resins; polyalkylene polymers; terpene resins; terpene esters; styrene-alkylene copolymers; organic or inorganic reinforcing fibrous materials; element sulfur; sulfur-containing compounds; lower alkyl tin oxides; alkali metal hydroxides; benzothiazyl disulfide; diphenyl guanidine; factice; and mixtures thereof. Non-limiting examples of such substances include sodium oxide, barium oxide, calcium oxide, manganese dioxide, dibutyl tin oxide, sodium peroxide, barium peroxide, calcium peroxide, zinc peroxide, lead peroxide, sodium pyrophosphate peroxide, sodium carbonate peroxide, sodium perborate, sodium hydroxide, potassium hydroxide, calcium hydroxide, strontium hydroxide, sodium acetate, sodium carbonate, sodium phosphate, sodium molybdate, ammonium dichromate, and dinitro benzene. --

Please replace the entire section under the heading "ABSTRACT" with the following new paragraph:

-- A golf ball is disclosed, having a cover layer encasing a subassembly, which in turn having a barrier layer encasing a core. The barrier layer has a water vapor transmission rate of less than about 0.6 grams•mm/m²•day and a thickness of about 0.001 inches to about 0.1 inches, preferably about 0.01 inches to about 0.1 inches. The composition of the barrier layer comprises at least one curable material, and optionally in combination with flakes such as aluminum flakes, iron oxide flakes, micaceous flakes, flaked glass, leafing aluminum flakes, and graphite flakes. --